

Oral Health and Diabetes

“Diabetes can lead to changes in the oral cavity...”



Oral Health in Massachusetts: A Fact Sheet

What is the public health issue?

Diabetes is a disease that affects millions of people and their families.² It currently affects approximately 20.8 million people in the United States, and an estimated 6.2 million of those people have not yet been diagnosed.³

Diabetes is a serious health issue with many complications. About 60% to 70% of people with diabetes have mild to severe forms of nervous system damage.³ The results of such damage can include impaired sensation or pain in the feet or hands, slowed digestion of food in the stomach, carpal tunnel syndrome, and other nerve problems. Also, more than 60% of nontraumatic lower-limb amputations occur in people with diabetes.³ Furthermore, poorly controlled diabetes during pregnancy can cause major birth defects and spontaneous abortions, and can result in excessively large babies, posing a risk to both mother and child.³ Additional complications of diabetes include heart disease, blindness, kidney disease, and increased susceptibility to illnesses, such as influenza and pneumonia. Overall, the risk for death among people with diabetes is about twice that of people without diabetes of similar age.³

Diabetes in Massachusetts¹

- ✓ 319,278 (6.4%) adult residents of Massachusetts have been diagnosed with diabetes
- ✓ 32.8% of people with diabetes in Massachusetts didn't have a dental visit in the last year
- ✓ About 3 times as many Massachusetts residents with diabetes have lost 6 or more teeth compared to those without diabetes

What is the relationship between diabetes and oral health?

Diabetes can lead to changes in the oral cavity, and uncontrolled diabetes can contribute to uncontrolled gum disease. Poor glycemic control in diabetics is associated with gingivitis and more severe periodontal diseases.⁵ Periodontal disease is a chronic bacterial infection that affects the gums and bone supporting the teeth. If left untreated, periodontal diseases can lead to tooth loss.⁶ People living with diabetes have about twice the risk for periodontal disease as healthy patients, and almost one-third of people with diabetes have severe periodontal disease with loss of attachment of the gums to the teeth measuring five millimeters or more.³ Periodontal disease may also make it hard for diabetics to control their blood sugar levels.⁷ Oral signs and symptoms of diabetes can include taste disorders, a neurosensory disorder known as burning mouth syndrome, and abnormal wound healing. Additionally, diabetes can lead to oral fungal infections, called candidiasis or thrush. These infections cause painful white patches in the mouth, and are due to increased glucose levels in saliva.⁷ Individuals with diabetes may also notice a fruity (acetone) breath or frequent dry mouth, which can lead to a marked increase in dental decay.⁵

Strategies to Share with Your Patients to Maintain a Healthy Mouth with Diabetes⁷

- ✓ Control your blood glucose.
- ✓ Brush twice daily with fluoride toothpaste and floss each day.
- ✓ Visit your dentist regularly, and inform him or her that you have diabetes.
- ✓ Quit smoking.
- ✓ Check your mouth regularly for any problems. You should visit your dentist if your gums bleed when you brush or floss, or if you notice dryness, soreness, white patches, or a bad taste in your mouth.

Good Oral Health for People with Diabetes

- See a physician every three to six months, and visit a dentist at least every six months even if you don't have natural teeth⁸
- Obtain an influenza vaccine every year during flu season⁸
- Eat healthy. Construct a personal diabetes food plan with your physician. Eat the correct portions of healthy foods, and eat foods that have less fat and salt.⁹
- Maintain a healthy weight and try to engage in physical activity on most days of the week.⁹
- Quit smoking.⁹
- Take your medicines and check your blood glucose correctly, as directed by your physician.⁹
- Check your feet every day for cuts, blisters, red spots, and swelling. Notify your doctor immediately if you notice any changes.⁹

What is Massachusetts doing?

The Diabetes Prevention and Control Program at the Massachusetts Department of Public Health convened a Diabetes Guidelines Work Group to develop *Massachusetts Guidelines for Adult Diabetes Care*, which provides tools for healthcare workers to help guide diabetes care and treatment. The goal of the program is to improve access to quality diabetes services and care within Massachusetts, with an emphasis on reaching those most in need.⁸ To access the *Massachusetts Guidelines for Adult Diabetes Care* go to: http://www.maclearinghouse.com/PDFs/Diabetes/GuidelinesFY07/DB723_2007.pdf

References

1. Massachusetts Department of Public Health. *A Profile of Health Among Adults*, 2006.
2. Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion. *Diabetes & Me*. United States Department of Health and Human Services. Diabetes Public Health Resource. Bethesda, MD, July 12, 2007. <http://www.cdc.gov/diabetes/consumer/index.htm>
3. Centers for Disease Control and Prevention. *National Diabetes Fact Sheet*. U.S. Department of Health and Human Services. United States, 2005. http://apps.nccd.cdc.gov/DDTSTRS/template/ndfs_2005.pdf
4. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Adult and Community Health, *data from the Behavioral Risk Factor Surveillance System*. Data computed by the Division of Diabetes Translation. Atlanta, GA, 2005. <http://www.cdc.gov/diabetes/statistics/prev/state/index.htm>.
5. World Health Organization. *Oral Health*. WHO Media Centre Fact Sheet. February 2007. <http://www.who.int/mediacentre/factsheets/fs318/en/>
6. American Academy of Periodontology. *Gum Disease: What You Need to Know*. Chicago, IL, March 18, 2008. <http://www.perio.org/consumer/2a.html>
7. National Institutes of Health. National Institute of Dental and Craniofacial Research. *Diabetes: Dental Tips*. U.S. Department of Health and Human Services. Bethesda, MD, May 2007. www.nidcr.nih.gov
8. Massachusetts Department of Public Health. Office of Health and Human Services. *Massachusetts Guidelines for Adult Diabetes Care*. Bureau of Family and Community Health. Diabetes Prevention and Control Program. Massachusetts, 2007. http://www.maclearinghouse.com/PDFs/Diabetes/GuidelinesFY07/DB723_2007.pdf
9. U.S. Department of Health and Human Services. *Tips to Help You Feel Better and Stay Healthy. Good News for People with Diabetes*. National Diabetes Education Program. Joint program of the National Institutes of Health and the Centers for Disease Control and Prevention. September 2003. http://www.ndep.nih.gov/diabetes/pubs/TipsFeel_Eng.pdf

For more information, contact:

Lynn A. Bethel, RDH, BSDH, MPH
Director, Office of Oral Health
250 Washington Street
Boston, MA 02108-4619
Lynn.Bethel@state.ma.us

